



# Teaching & Learning Newsletter

SPRING 2 2022

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Welcome to the SPRING 2 edition of the WeST Teaching & Learning (T&L) newsletter, a termly curation of some educational thinking, reading and evidence to support quality teaching and learning in the classroom and the effective enactment of the WeST principles of curriculum delivery. You will also find some subject specific shares from the WeST SI team.

As always, the first page reminds you of the **WeST Principles of Curriculum Delivery**, with key documents linked and information about the supporting training in the form of voluntary bitesize remote sessions. Delivered over MS Teams, these sessions will be 45 minutes, are voluntary and open to all.

**Next session: Tuesday 08 March, 16.00 – 16.45, MS Teams.**

**The fourth session in the series will focus on Quality Teacher Instruction.** We will discuss the quality of our instruction matters, remind ourselves of Rosenshine’s research and look in particular at explicit instruction and a few ways of implementing this in the classroom through worked examples, modelling/thinking aloud and questioning to extend and challenge thinking.

Below are the dates and themes for your diary, we hope to see you there. You do not have to pre-register, simply click on the session title to join the meeting, please do copy, and paste the below meeting link into your calendars and share with colleagues. Your T&L leads and headteachers will receive the link ahead of each session as a reminder.

**WEST Bitesize CPD. Session 4: Quality Teacher Instruction, Tuesday 08 March, 16.00**

**[Click to join meeting](#)**

As ever, I hope it’s a useful read.

*Ruth*

Ruth Woodhouse

Exec. Director of Training & Learning

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# WeST Principles of Curriculum Delivery

## Rationale:

The WeST Principles of Curriculum Delivery are a curated body of knowledge, rooted in evidence, experience and current educational thinking that succinctly communicates what great teaching and learning looks like at WeST. A practical framework – not a checklist that guides support staff, teachers, and leaders through our agreed expectations of quality teaching and learning.

Our commitment is that these principles will be a golden thread, running through our collaborative school improvement work and will be a returning reference point for quality assurance and professional development at all levels.

You will find both a short guide and an A3 one pager linked below.

[The WeST Principles of Curriculum Delivery – a guide](#)

[The WeST Principles of Curriculum Delivery – A3 One pager](#)

To support the effective embedding and implementation of these principles you are invited to attend remote sessions, an introductory session on how we learn followed by a session for each principle; that expands on what, why and how it can be enacted in the classroom.

## WeST voluntary bitesize training, remote via MS Teams, 16.00 – 16.45.

These sessions will be 45 minutes, are voluntary and open to all. Below are the dates and themes for your diary, we hope to see you there. You do not have to pre-register, simply click **on the session title to join the meeting**. Your T&L leads and headteachers will receive the link a week prior each session as a reminder.

Tuesday 28 September, 16.00 - [What is learning & how do we catalyse it?](#)

Tuesday 30 November, 16.00 - [High academic expectations and scholarly environments](#)

Tuesday 18 January, 16.00 - [Memorable learning](#)

Tuesday 08 March, 16.00 - [Quality teacher instruction](#)

Tuesday 17 May, 16.00 - [Guided \(deliberate\) Practice](#)

Tuesday 28 June, 16.00 - [Independent Practice & Feedback](#)

# WeST Training: Principles of Curriculum Delivery

– 6 voluntary, bitesize remote sessions

Find archived sessions here: [Previous sessions](#)

## *Session Overviews:*

1. **Tuesday 28<sup>th</sup> September, 16.00 - What is learning & how do we catalyse it?**
  - Our beliefs & an introduction to WeST Principles of Curriculum Delivery
  - What is teacher expertise & how do we develop it?
    - Expertise as mental models, actions and impact
  - What is learning and how does it happen?
    - Willingham's Simple Model of Memory
    - Ebbinghaus's Forgetting Curve
  - An introduction to cognitive load theory and why it matters
2. **Tuesday 30<sup>th</sup> November, 16.00 - High academic expectations and scholarly environments**
  - Do expectations affect pupil outcomes? – YES, so how do we raise them?
  - Principles of classroom culture
  - Building academic rigour that engages students in learning
3. **Tuesday 18<sup>th</sup> January, 16.00 – Memorable learning**
  - Why memory?
    - Memory architecture: Working Memory (WM) and Long-Term Memory (LTM)
  - Effective strategies for memorable learning: retrieval, spaced practice, interleaving, elaboration and the testing effect
4. **Tuesday 08<sup>th</sup> March, 16.00 – Quality teacher instruction**
  - Why is instruction so important to learning?
  - Rosenshine's Principles of Instruction
  - 'I do' and Explicit & Direct Instruction
5. **Tuesday 17<sup>th</sup> May, 16.00 - Guided (deliberate) Practice**
  - Why practice is the way to make progress
  - What is good deliberate & guided practice
    - Modelling, Questioning, Scaffolding and monitoring student thinking
    - I do, we do, you do - the gradual release of responsibility
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6. **Tuesday 28<sup>th</sup> June, 16.00 - Independent Practice & Feedback**
  - Why is independent practice important and what counts?
    - Overlearning & fluency
    - How to do it well in the classroom
  - What the research says about feedback to improve pupil learning (EEF Principles)
    - Effective feedback in the classroom: task, subject, self-regulation strategies

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# Why does instruction matter so much to learning and remembering?

The following statement will be a familiar one. It should challenge us, daily to reflect on how we are ensuring and assuring that all our pupils are learning more, knowing how to do more and crucially remembering it. Ahead of Tuesday's CPD Bitesize, I'll endeavor to share some key thinking on the effect quality, explicit instruction can have on pupils learning.

**“Learning, in turn is defined as a change in long-term memory, if nothing has been changed in long term memory – nothing has been learned.”**

Kirschner, Sweller and Clark. 2006 *Why Minimal Guidance During Instruction Does Not Work: An Analysis of the Failure of Constructivist, Discovery, Problem-Based, Experiential, and Inquiry-Based Teaching* Educational Psychologist, 42(2) 75-86

**Working Memory** – is the site of awareness and thinking. Working memory is where information that is being actively processed is held, but its capacity is limited and can be overloaded.

**Long-term Memory** – is where factual and procedural knowledge is stored. Long-term memory can be considered as a store of knowledge that changes as pupils learn by integrating new ideas with existing knowledge.

The aim of learning is to generate a persistent change in knowledge (Kirschner et al., 2006). Thinking is the process that leads to such a change, a process governed by our working memory.

**Read more here:** [IFT Report: Learning, What is it, and how might we catalyse it? Peps Mccrea](#)

**Listen** to Deans of Impact, Executive Director Benjamin Riley explain what we know about how pupils learn best. <https://youtu.be/noTvKPxIHbE>

Enthusiasm for 'discovery learning' is not supported by research evidence, which broadly favours direct instruction) Kirschner et al.,2006). **Although learners do need to build new understanding on what they already know, if teachers want them to learn (\*and remember) new ideas, knowledge, or methods they need to teach them directly.**

“...learning is a result of processing that which you encounter. The goal of good learning and instruction is to optimise this information processing. This involves, among other things, (1) knowing how to prepare learners for learning (e.g., prior knowledge, feed-forward), (2) knowing how to facilitate that process (e.g., via dual coding, scaffolding, mathemagenic behaviours – *behaviours that give birth to learning*, cognitive load theory, employing study strategies such as spaced practice, retrieval practice, and/or variability of practice), (3) knowing how to follow-up the learning experience (e.g., feedback, feed-forward, assessment for learning), and (4) creating a proper context for learning (e.g., situated cognition, social learning, cognitive apprenticeship).

**Ernst Rothkopf said: “You can lead a horse to water, but the only water that reaches his stomach is what he drinks.” Create learning situations that get your students to drink!”**

- Paul Kirschner, being interviewed in the blog: [Understanding how learning happens.](#)

# What is Explicit or Direct Instruction?

Firstly, let's be clear that findings from both Brophy and Good and Rosenshine support that when we talk about direct or explicit instruction – that we are **talking about an entire process**. Not just the episode within a lesson where an exposition takes place, information is presented, a teacher talks, and students listen. BUT it involves chunking content into attainable components, guiding students practice, scaffolding – gradually releasing control, checking for understanding and giving feedback.

**Explicit instruction is characterized by a series of supports or scaffolds, whereby students are guided through the learning process with clear statements about the purpose and rationale for learning the new skill, clear explanations and demonstrations of the instructional target, and supported practice with feedback until independent mastery has been achieved. Rosenshine (1987) described this form of instruction as “a systematic method of teaching with emphasis on proceeding in small steps, checking for student understanding, and achieving active and successful participation by all students” (p. 34).**

From *Explicit Instruction: Effective and Efficient Teaching* by Anita L. Archer and Charles A. Hughes. Copyright 2011 by The Guilford Press. All rights reserved. Sample chapter here: [Archer.indb \(explicitinstruction.org\)](http://Archer.indb (explicitinstruction.org))

## Rosenshine

Rosenshine's 'Principles of Instruction' has been circulating schools now for some time, and is the most recognisable process, that with clarity and simplicity outlines what quality teacher instruction could look like. In 'Teaching Functions', 1986 Rosenshine first shared 6 main ideas, in the IAE article (2010), he outlines 17 'instructional procedures' that emerge from decades of research, from which he then formulates ten principles. These ten principles have then been organised by Tom Sherrington into four strands: Sequencing and modelling, Questioning, Reviewing Material and Stages of Practice.

**READ:** [Principles of Instruction: Research-Based Strategies That All Teachers Should Know, by Barak Rosenshine; American Educator Vol. 36, No. 1, Spring 2012, AFT](#)

**Watch:** [Tom Sherrington: Rosenshine's Principles and Curriculum Design: Connection? - ResearchED](#)

[Rosenshine Masterclass Captured. Free CPD! | teacherhead](#)

**THE PRINCIPLES OF INSTRUCTION**  
TAKEN FROM THE INTERNATIONAL ACADEMY OF EDUCATION

This poster is from the work of Barak Rosenshine who based these ten principles of instruction and suggested classroom practices on:

- research on how the brain acquires and uses new information
- research on the classroom practices of those teachers whose students show the highest gains
- findings from studies that taught learning strategies to students.

**01 DAILY REVIEW**  
Daily review is an important component of instruction. It helps strengthen the connections of the material learned. Automatic recall frees working memory for problem solving and creativity.

**02 NEW MATERIAL IN SMALL STEPS**  
Our working memory is small, only handling a few bits of information at once. Avoid its overload — present new material in small steps and proceed only when first steps are mastered.

**03 ASK QUESTIONS**  
The most successful teachers spend more than half the class time lecturing, demonstrating and asking questions. Questions allow the teacher to determine how well the material is learned.

**04 PROVIDE MODELS**  
Students need cognitive support to help them learn how to solve problems. Modelling, worked examples and teacher thinking out loud help clarify the specific steps involved.

**05 GUIDE STUDENT PRACTICE**  
Students need additional time to rephrase, elaborate and summarize new material in order to store it in their long-term memory. More successful teachers built in more time for this.

**06 CHECK STUDENT UNDERSTANDING**  
Less successful teachers merely ask "Are there any questions?" No questions are taken to mean no problems. False. By contrast, more successful teachers check on all students.

**07 OBTAIN HIGH SUCCESS RATE**  
A success rate of around 80% has been found to be optimal, showing students are learning and also being challenged. Better teachers taught in small steps followed by practice.

**08 SCAFFOLDS FOR DIFFICULT TASKS**  
Scaffolds are temporary supports to assist learning. They can include modelling, teacher thinking aloud, cue cards and checklists. Scaffolds are part of cognitive apprenticeship.

**09 INDEPENDENT PRACTICE**  
Independent practice produces "overlearning" — a necessary process for new material to be recalled automatically. This ensures no overloading of students' working memory.

**10 WEEKLY & MONTHLY REVIEW**  
The effort involved in recalling recently learned material embeds it in long-term memory. And the more this happens, the easier it is to connect new material to such prior knowledge.

# Making our instruction effective and efficient in the classroom

Like every potentially effective T&L strategy, it's not just that we do it. But how we select and plan strategies within the context of our curriculum sequence and the starting point of our learners – why this, why now, how will I know it's been learnt?

When we reflect on what we understand about the how pupils learn, Rosenshine's principles of instruction make sense. In Tuesday's Bitesize session we will focus in on 3 ways (others are available, but we only have 45 mins!) to enact quality instruction in our classrooms: Modelling/thinking out loud, using worked examples and questioning to extend and challenge thinking. Here's a taster and some further reading/watching for you to reflect on what good practice looks like.

Read: [Rosenshine's 10 Principles of Instruction | InnerDrive Guides](#) This article includes helpful tips on how to implement each principle in practice. Here's an example for how we can ask lots of questions, engage all learners in thinking and participating and check all pupils for understanding...

## ***Ask pre-questions***

Pre-questions are questions that you ask students [before you teach them](#) lesson material. Although this may seem like a redundant thing to do, research shows that students who were asked pre-questions remembered almost 50% more than students who weren't.

## ***Use wait times***

It's also worth mentioning that it's not just what you ask, but when you ask the question that matters too. Teachers should ensure they're [providing students with enough time](#) to retrieve the answer from their long-term memory. This serves two purposes:  
Students are less likely to guess the answer;  
Students are less likely to get overwhelmed and will attempt to answer the question.

## ***Encourage self-questioning***

Research shows that students who ask themselves metacognitive questions such as "How is this similar to a previous task?" or "How can I improve for next time?" whilst completing a task perform better academically. This is because it forces them to think deeply about the material they've just learnt, which benefits their long-term memory.

## ***Rosenshine's 6 suggested questions***

Need a prompt? Here are [6 questions Rosenshine suggests](#) you use to get your students to think more deeply about their learning and for you to gauge their level of understanding:

"What is the main idea of ...?"

"What are the strengths and weaknesses of ...?"

"How does this tie in with what we have learnt before?"

"Which one is the best ... and why?"

"Do you agree or disagree with this statement: ...?"

"What do you still not understand about ...?"

## ***What if students aren't answering questions***

But what if you've asked the best questions you could, and are still met with silence and blank faces? You can't just pick someone every time, especially since participating in class has many benefits for students: it allows them to practise retrieval, develop

metacognitive skills and even get better results. Thankfully, Rosenshine thought about that too. He suggested [5 ways to get students to engage with questions](#) in the classroom:

**Tell an answer to a neighbour** - This promotes oracy and peer work, which can in turn help students gain a new perspective and practice in a safe space. By moving around the classroom 'listening in' you can also check for learners understanding and pick up any misconceptions or star responses.

**Summarise the answer in one or two sentences** - This helps students engage more deeply with the material and figure out the key information. It doesn't have to be written either, if we can say it first, chances are we can write it better.

**Write the answer down before sharing it** - It gives them a bit more time to process and think about the question. Mini white boards or backs of the book can be useful to boost confidence and encourage effort.

**Raise your hand if you know the answer, then follow up with cold call**- This one is especially useful for quieter students and can also help you gauge how many students know the material. You don't have to ban hands-up to effectively practice cold call!

[Cold Call Forensics: purpose; spirit; details. | teacherhead](#)

**Raise your hand if you agree with an answer that someone else has shared** - This will help create a more positive classroom culture, but also allow you to check students have been paying attention. As a bonus, this can help boost the confidence of the student who initially shared the answer. A stretch or process question to follow is a great way to raise participation and thinking ratio, extend thinking and yet again to check for understanding.

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## Shares from our Lead Practitioners and Executive Directors

### WeST MFL

Subject Leader and Teacher Briefing: Understanding the new subject content for GCSE French, German and Spanish

**Format:** online

**Timings:** 3.30-4.30pm / 4.00-5.00pm / 7.00-8.00pm

**Dates:** various dates throughout March – see schedule for more information.

**Audience:** MFL Heads of Department, Subject Leaders or MFL teachers.

**Cost:** free

On 14 January, the Department for Education confirmed [changes to the French, German and Spanish GCSEs](#), in line with the 2016 MFL Pedagogy Review recommendations and 2021 Ofsted research review. The revised GCSEs are for first teaching from September 2024, with first exams in summer 2026.

This FREE online event will develop understanding of the GCSE changes and draw out their implications for teaching and assessment, answering key questions and providing a springboard for any curriculum and pedagogy development planning.

It will offer an invaluable opportunity for teachers to engage in relevant discussions and return to school with practical knowledge to guide their next steps.

**READ: [March Briefings on the new GCSE subject content – NCELP](#)**

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## Recommendations from our Director of Education, Richard Light:

1. Tom Sherrington has been drafting up some planning tools and guidance documents that align with the implementation principles Ruth Woodhouse has been working on with schools. They draw on the Rosenshine principles initially and may prove a useful resource for those wishing to embed the key principles of curriculum implementation.  
[The @teacherhead planning tool. Draft | teacherhead](#)
2. Tom also posted a revisit blog to Dylan Wiliam's five formative assessment strategies which again, align with the planning tools and curriculum implementation approaches above. For our February Primary inset session, we will be focusing on assessment, so I thought this timely and helpful.  
[Revisiting Dylan Wiliam's Five Brilliant Formative Assessment Strategies. | teacherhead](#)
3. Ruth Ashbee published an excellent blog on School Discourse and the teaching profession. She talks about Fields of practice and how leadership teams can enhance features of the profession. Expertise and specialisms are promoted strongly. An interesting think piece, as you'd expect from Ashbee.  
[Shake Up School Thinking: Professionalisation and the Schools Discourse \(ruth-ashbee.com\)](#)
4. David Didau published his latest blog on The Shape of Assessment. He promotes some strong arguments for a mastery style approach to assessment and what steps might be needed to move towards such an approach.  
[The shape of assessment – David Didau \(learningspy.co.uk\)](#)

## Further reading:

Peps Mccrea (2018) Memorable Teaching: leveraging memory to build deep and durable learning in the classroom [Memorable Teaching: Leveraging memory to build deep and durable learning in the classroom: 2 \(High Impact Teaching\) : Mccrea, Peps: Amazon.co.uk: Books](#)

Pashler, H., Bain, P. M., Bottge, B. A., Graesser, A., Koedinger, K., McDaniel, M., & Metcalfe, J. (2007). Organizing Instruction and Study to Improve Student Learning. US Department of Education. [bit.ly/ecf-pas](http://bit.ly/ecf-pas)

Blog: [Principles of memory – Evidence for Educators \(wordpress.com\)](#)

Understanding Misconceptions: Teaching and Learning in Middle School Physical Science, By Philip M. Sadler and Gerhard Sonnert, American Educator, Vol. 40, No. 1, Spring 2016, AFT <https://files.eric.ed.gov/fulltext/EJ1094278.pdf>

Want all of Daniel Willingham's articles in one place? Here you go: [Articles - Daniel Willingham--Science & Education](#)

[\(PDF\) Think and pair before share: Effects of collaboration on students' in-class participation \(researchgate.net\)](#)

Willingham DT (2009), '[Why don't students like school? Because the mind is not designed for thinking](#)', American Educator, Spring issue, pages 4 to 13

[Peps Mccrea on Twitter: "How does classroom success influence motivation for learning, and what can we do about it?"](#)



Chetty, R., Friedman, J. N., & Rockoff, J. E. (2014). Measuring the Impacts of Teachers II: Teacher Value-Added and Student Outcomes in Adulthood. *American Economic Review*, 104(9), 2633–2679. [bit.ly/ecf-che](https://bit.ly/ecf-che)

Coe, R., Aloisi, C., Higgins, S., & Major, L. E. (2014). What makes great teaching. Review of the underpinning research. Durham University: UK. [bit.ly/ecf-coe](https://bit.ly/ecf-coe)

Education Endowment Foundation (2017). Metacognition and Self-regulated learning: Guidance Report. [bit.ly/ecf-eef](https://bit.ly/ecf-eef)

Rosenshine, B. (2012). Principles of Instruction: Research-Based Strategies That All Teachers Should Know. *American Educator*, 36(1), 12–20. [bit.ly/ecf-ros](https://bit.ly/ecf-ros)



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